REMARKS

This is intended as a full and complete response to the Final Office Action dated February 2, 2006, having a shortened statutory period for response set to expire on May 2, 2006. Please reconsider the claims pending in the application for reasons discussed below.

Claim Rejections - 35 U.S.C. § 102

Claim 8 stands rejected under 35 U.S.C. §102(b) as being anticipated by *Beasley*. In response, Applicants respectfully traverse the rejection.

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). "The identical invention must be shown in as complete detail as is contained in the... claim." *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). Further, the elements must be arranged as required by the claim. *In re Bond*, 910 F.2d 831, 15 USPQ2d 1566 (Fed. Cir. 1990). *Beasley* fails to disclose each and "each and every element as set forth in" claim 8.

Claim 8 includes the limitation of a "layer capable of changing thickness in response to the measurand, wherein the measurand includes at least one member of the group consisting of heat, humidity, light, electric field, magnetic field and chemicals." The Examiner states that *Beasley* "teaches that the measurand includes light." However, light does not induce a change in thickness of an interleaved film disclosed in *Beasley* between two fiber optic waveguide cores. Rather, the interleaved film disclosed in *Beasley* has a thickness dependent on pressure and hence not "in response to" light. Any functional relationship between light and pressure with a coupler disclosed in *Beasley* does not impart to the light the claimed relationship of thickness changing in response to the light.

Therefore, *Beasley* fails to teach, show or suggest each and every limitation of claim 8. Applicants submit that claim 8 and all claims dependent thereon are allowable.

Accordingly, Applicants respectfully request withdrawal of the rejection and allowance of the claims.

Claim Rejections - 35 U.S.C. § 103

Claims 1, 3, 9, 12-14, 16 and 19 stand rejected under 35 U.S.C. §103(a) as being unpatentable over *Beasley* in view of *Bergh*. In response, Applicants respectfully traverse the rejection.

The Examiner bears the initial burden of establishing a *prima facie* case of obviousness. *See* MPEP § 2142. To establish a *prima facie* case of obviousness three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one ordinary skill in the art, to modify the reference or to combine the reference teachings. Second, there must be a reasonable expectation of success. Third, the prior art reference (or references when combined) must teach or suggest all the claim limitations. *See* MPEP § 2143.

Claim 1 recites "a layer disposed on a flat surface of the D-shaped portion, wherein a refractive index of the layer changes in response to a change in the measurand." The Examiner states that "*Beasley* does not teach that the refractive index of the layer changes in response to a change in the measurand." Additionally, the Examiner states that *Bergh* "teaches a refractive index change in response to a change in a measurand (polarization of light)." However, a change in polarization of light does not induce a change in refractive index of a polarizer disclosed in *Bergh*. Rather, the polarizer disclosed in *Bergh* utilizes a crystal that is properly selected and oriented such that light of one polarization can be retained within a fiber while light of a second polarization is removed. *See*, column 2, lines 44-47. Accordingly, the crystal can have multiple refractive indices and be oriented to adjust the lossiness of one polarization without affecting the other. *See*, column 3, lines 3-13. In other words, the refractive index of the crystal in *Bergh* does not change in response to a change in the polarization of light.

Therefore, *Beasley* in view of *Bergh* fails to teach, show or suggest each and every limitation in claim 1. Applicants submit that claim 1 is not obvious and that claim 1

and all claims dependent thereon are allowable. Accordingly, Applicants respectfully request withdrawal of the rejection and allowance of claims 1 and 3.

Applicants submit that claim 9 is patentable based at least on the traversal presented above regarding claim 8, which claim 9 depends from. *Bergh* fails to overcome the deficiencies in *Beasley* as discussed herein. Accordingly, Applicants respectfully request withdrawal of the rejection and allowance of this claim.

Claim 12 includes the limitation that "a strain applied to the D-shaped portion provides a change in a polarization of the light transmitted through the optical sensor in response to the parameter." The Examiner states that "*Beasley* does not teach that the strain applied to the sensor changes a polarization of the light." Additionally, the Examiner states that *Bergh* "teaches a change in polarization in response to a parameter." However, a polarizer disclosed in *Bergh* does not provide any responsive type of change in polarization. Rather, the polarizer disclosed in *Bergh* as previously described utilizes a crystal that is properly selected and oriented such that light of one polarization can be retained within a fiber while light of a second polarization is removed. In other words, the polarization of light transmitted through the polarizer in *Bergh* does not change in response to any parameter.

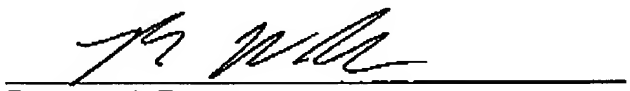
Therefore, *Beasley* in view of *Bergh* fails to teach, show or suggest each and every limitation in claim 12. Applicants submit that claim 12 is not obvious and that claim 12 and all claims dependent thereon are allowable. Accordingly, Applicants respectfully request withdrawal of the rejection and allowance of claims 12-14, 16 and 19.

Claims 6, 17, and 20 are rejected under 35 U.S.C. §103(a) as being unpatentable over *Beasley* in view of *Bergh* as applied to claims 1, 12, and 19 above, and further in view of US Pre Grant Publication to *Bailey et al.*, number *2002/0197037*. Claim 11 is rejected under 35 U.S.C. §103(a) as being unpatentable over *Beasley* in view of *Bailey*. In response, Applicants submit that these claims are patentable based at least on the traversal presented above the independent claims from which claims 6, 11, 17 and 20 depend. Accordingly, Applicants respectfully request withdrawal of the rejection and allowance of the claims.

Conclusion

The references cited by the Examiner, alone or in combination, do not teach, show, or suggest the invention as claimed. Having addressed all issues set out in the office action, Applicants respectfully submit that the claims are in condition for allowance and respectfully request that the claims be allowed.

Respectfully submitted,



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